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EXAMINER	
CHANG, AUDREY Y	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	**Application No.** 10/680,428	**Applicant(s)** RACETTE ET AL.
	Examiner Audrey Y. Chang	**Art Unit** 2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 July 2006*.
2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18,20-22 and 38-47* is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-18,20-22 and 38-47* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a)☐ All b)☐ Some * c)☐ None of:
1.☐ Certified copies of the priority documents have been received.
2.☐ Certified copies of the priority documents have been received in Application No. _____.
3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Remark

- This Office Action is in response to applicant's amendment filed on July 26, 2006, which has been entered into the file.
- By this amendment, the applicant has amended claims 1, and 17 and has canceled claims 19 and 23-37 and has newly added claims 38-47. **The applicant is respectfully noted that the claim 39 is being added at the end of claim 38 and not being a separate paragraph, which therefore is not in comply with the rule. The applicant is respectfully requested to submit a new, complete list of claims in the next communication, even if no amendment to the claims is added.**
- Claims 1-18, 20-22 and 38-47 remain pending in this application.

Response to Amendment

1. The amendment filed July 26, 2006 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

(1). claim 1 has been amended to include the phrase "said dark separation lines of said image ... such that information coming through one of said apertures comes from only one cell and not an adjacent cell and a viewer positioned in front of said apertures will receive information from a plurality of cells at one time, said information for each individual cell coming through only one aperture". The specification FAILS to give support that the dark separation lines of the images will be able to make the information for each individual cell coming through only one aperture.

(2). **the newly added claims 38 and 43** recite the phrase "said apertures determine a position of said dark rippled line of said computer-processed image" that lacks positive support from the specification.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. **Claims 1-16 and 38-47 are rejected under 35 U.S.C. 112, first paragraph**, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The reasons for rejection based on the newly added matters are set forth in the paragraph above.

4. **Claims 1-18, 22, and 38-47 are rejected under 35 U.S.C. 112, first paragraph**, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 1 has been amended to include the phrase "*said dark separation lines of said image ... such that information coming through one of said apertures comes from only one cell and not an adjacent cell and a viewer positioned in front of said apertures will receive information from a plurality of cells at one time, said information for each individual cell coming through only one aperture*", the specification

fails to teach how could the dark separation lines of the image be able to achieve this. Specification as shown in paragraph [0053] to [0056] specifically teaches that it is the **spacer** in the parallax barrier that blocks the light penetrating more than one cell and thus insulating adjacent cells.

The amended claims 1 and 17 and newly added claims 38 and 43 fail to disclose that how could the auto-stereoscopic view is possible. The claims fail to disclose the criterions for the image to contain left perspective view and right perspective view and fail to provide the means for separating and directing the left perspective view to the left eye and the right perspective view to the right eye of an observer only. The dark separation lines of the image WILL not enable auto-stereoscopic view. Claims 38 and 43 and their respective dependent claims COMPLETELY cannot give auto-stereoscopic three-dimensional views.

The phrase "*such that a view of a neighboring cell is obstructed from all of said points of view*" recited in **claim 17** is **wrong**. If this is the case, then no auto-stereoscopic view ever will be possible. Applicant's own disclosure does not support such feature either, (please see Figures 8 and 9). (This is a repeated rejection from the previous Office Action, applicant fails to correct it).

Claim 17 has been amended to include the phrase " configured such that a view of neighboring cell is obstructed from **all of said points** of **view** when said one of the plurality of cells is viewed through one of said aperture thereby creating said auto-stereo three dimensional views", that is completely wrong. Auto-stereo three dimensional image will NOT be able created by such. Furthermore, these amended phrases seem to suggest that **a** viewing position **only** sees light from a single aperture, if this is the case the auto-stereoscopic viewing will NOT be enable. Applicant's own disclosure in Figures 8 and 9, show that the light passes through one aperture can reach many different observation position.

The newly added claims 38 and 43 recite the phrase "dark rippled line across ... image **between** each row of **apertures**, said dark rippled line oscillating between a top of an aperture in a lower row and a bottom of an aperture in an upper row" is completer nonsense since the dark rippled separation lines are in the image medium not in the barrier screen and they cannot be "oscillating" between rows of the APERATURES for the barrier screen. It is also not clear how could the dark line "oscillate"? Are they movable?

The claims at these juncture are not enabling the claimed auto-stereoscopic three-dimensional view.

Claim Objections

5. **Claims 1-18, 20-22, and 38-47 are objected to because of the following informalities:**

(1). **Claim 1 has been amended** to include a phrase "regrouping information to displayed to a viewer" that is underlined and also strike through at the same time, so it is not clear if this phrase is or is not part of the claim. Applicant is respectfully requested to proof read the amendment before submitted to the Office.

(2). **Claims 1 and 17 have been amended** to include the phrase "for an auto-stereoscopic view". It is not clear then how does this "an auto-stereoscopic view" relate to the "plurality of points of views" as recited in different part of the claims.

(3). **Claims 1 and 17 have been amended** to include the phrase "the image being made up of a plurality of cells each of said cells being composed of a plurality of pixels (regrouping information to be displayed to a viewer) *for an auto-stereoscopic view*". However the claims are still *not clear* what are these *cells*, what are these *pixels* and what is this *information*, which are *crucial*, for making the auto-stereoscopic view possible. It is still not clear if these cells are each referred to a *particular* point of views, (wherein "a plurality of point views" is recited in preamble of the claims), or not. It is also not clear how do these "cells" **relate** to the barrier screen to **enable** the stereoscopic view, simply specifies the viewer sees information of one cell DOES NOT make the viewer see the auto-stereoscopic images. The definition of these "cell" therefore is very *crucial* for determining the operation of the apparatus and method for **generating** the auto-stereo three-dimensional view. **Also,** the preamble states auto-stereo three dimensional views are generated from **a plurality of points of view**, yet the body of the claims **fails** to give a logical description as how does this "a plurality of points view" connect with "the image" as well as the "parallax screen" to actually "generate the stereo view".

(4). The phrase "to prevent image bleeding between the cells" recited in claim 1 is confusing and indefinite. It is not clear if this phrase means "blending between cells"?

(5). The phrase "providing a dark rippled line across said computer-processed image between apertures" recited in claims 38 and 43 is really confusing since the ripple line should in the image medium not in the barrier screen where the apertures located. The rippled line CANNOT oscillate as if it is movable. The rippled line can be "lined up" with the apertures in certain manner, it is not "provided" in the barrier screen.

(6). The phrase "*wherein a width and a length of apertures, a horizontal distance between apertures, a vertical gaps between rows of the apertures and a thickness of the substrate are set as* ***a function*** *of luminosity, horizontal viewing angle, vertical viewing angle, depth of field and image definition and said apertures determine a position of said dark rippled line*" recited in **claims 38 and 43** is completely confusing since the it is not clear if a *single* function can relate all these variables and it is not clear what is this function that can do it all? This phrase can only broadly examined as they are related. It is also not clear how does the apertures determined the positions of ripple lines.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. **Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the reissued patent issued to Sandor et al (Re. 35, 029 reissued of patent 5,113,213) in view of the patents issued to Berkel et al and Nomura et al.**

Sandor et al teaches an *apparatus* for generating *auto-stereography* wherein the apparatus comprises an *image comprising interlaced image elements*, (including left eye and right eye perspective images), (11-1 to 11-5, as shown in Figure 1), on one surface of a *film* (13) served as the *transparent substrate* and a *slit-type barrier screen* (12) formed on the other surface of the film (13) or substrate to provide parallax effect to the interlaced images such that the left eye perspective image is directed to left eye and right eye perspective image is directed to right eye for auto-stereoscopic viewing. Sandor et al **teaches** that, as shown in Figure 1, the image displayed on the film (11) that comprises a plurality of two-dimensional views for viewers (14) is made up of a *plurality of cells* that *each* further comprises a plurality of image strips or *pixels* (11-1 to 11-5), (please see columns 1-2, and 8), wherein *an auto-stereoscopic three-dimensional view can be established between adjacent two eye position*, (as shown in Figure 1, **for amended claim 1**). An illumination source for illuminating the image is implicitly included to generate the image light as demonstrated in Figures 1-2, and this suggests that the light source has to be behind the image film (11) to provide the light propagation as shown in Figures 1 and 2). Sandor et al teaches that the parallax barrier screen comprises clear aperture on opaque surface, (i.e. the black strips formed the opaque surface).

Sandor et al further teaches that **each single aperture** of the parallax barrier allows the image information **from only one cell** to pass through a widow for this single aperture to observer position, (please see Figure 1). **With regard to the amended features in claim 1**"*a viewer positioned in front of said apparatus will receive information from a plurality of cells at one time and information for each* *individual cell coming only one aperture"*, it is **explicitly demonstrated** in Figure 1 of **Sandor** et al that the a viewer positioned in front of the apparatus will receive information from a plurality of cells at one time and information for each individual cell coming through only one aperture. Sandor et al teaches to provide auto-stereoscopic view.

Sandor et al teaches explicitly that the image is processed by using a computer, the image therefore is "computer-processed image" and it has to be on a substrate as shown in Figure 1, (please see the abstract).

This reference has met all the limitations of the claims with the exception that it does not teach explicitly that the image cells are separated by *rippled* shaped black lines and the apertures or slits on the parallax barrier are *staggered.* It is however either implicitly true that the image cells are separated by black lines (for black lines may inherently be provided by the film that without any image information on it) or an obvious modification to one skilled in the art to make the image cells being separated by the black lines as demonstrated by the teachings of **Berkel** et al. **Berkel** et al teaches that *black matrix* or black lines, with *ripple shapes* (as shown in Figure 2A, **3**, 7-9), separating the image cells are used to reduce the possible cross talk between the image cells. **Nomura** et al in the same field of endeavor further teaches to use a *parallax barrier* with *staggered* apertures or slits (please see Figure 2) in corresponding to the staggered shaped (or zigzag shaped) image cells (1, Figures 2, 3A and 3B) in order to allow the image light being projected to the desired eye positions for stereoscopic viewing. It would then have been obvious to one skilled in the art to apply the teachings of **Berkel** et al and **Nomura** et al to modify the image cells and the parallax barrier screen with the specific arrangements of the image cells and apertures accordingly for the benefit of reducing cross talk between the image cells to ensure good image intensity quality of the auto-stereoscopic image viewed. It is implicitly true that for a an auto-stereoscopic view that is realized by an observer at one position, the observer will see image information from a plurality of cells and at same time the information from a cell will pass through only an aperture to reach that particular viewer position as explicitly shown in Nomura, (please see Figures 4 and 14-15).

With regard to claims 2-5, the staggered apertures of the parallax barrier screen taught by **Nomura** et al (please see Figure 2) are aligned in horizontal rows and are staggered horizontally and each row is spaced vertically from subsequent row. With regard to claim 5, Nomura et al teaches that different aperture sizes can be used to accommodate different resolution as desired.

With regard to claim 6, these references do not teach that the view points is at least 1000 however this is considered to be obvious matters of design choice to one skilled in the art to allow accurate stereoscopic viewing of an object.

With regard to claims 7-11, Sandor et al teaches that the **black** slits on the parallax barrier screen are printed using scanner printer, (column 7, lines 5-10), presumably using *black* ink. However this reference does not teach that the parallax barrier has two layers and each layer with apertures. **Nomura** et al in the same field of endeavor teaches that the parallax barrier can be provided by using two slit panels (14 and 14') that are either formed on *two* separated layers, (i.e. each with metal strips formed on a transparent plate, please see column 9, lines 1-3), or two sets of metal strips printed on two surfaces of a glass plate. Nomura et al teaches that arrangement has the advantage of providing a better reduction of the cross talk between the image cells, (please see Figure 17 and column 12 line 54 to column 13, line 13). The metal strips are opaque and could be reflective. It also known in the art to coat the back surface of the parallax barrier screen with highly reflective layer for the purpose of reflecting the light blocked by the barrier screen back to the illumination source in order to utilize the illumination source with more efficiency. With regard to claim 11, Nomura et al teaches that the slit size of the two panels (14 and 14') could be different from each other, which therefore means that one is thinner than the other.

With regard to claims 12-16, the transparent film (13) serves as the spacer between the parallax barrier and the image, and the barrier screen and the image and the spacer are bonded together to have good alignment. With regard to claim 14, it is implicitly true that the film or the transparent substrate is treated for printing. With regard to the treatments for sunlight, water and heat resistant, they are either inherently met or obvious modifications to one skilled in the art for the benefit of making the auto-stereography being able to resist environmental damages.

8. Claims 17-20 rejected under 35 U.S.C. 103(a) as being unpatentable over the patent issued to Sandor et al (Re. 35,029 reissued of patent 5,113,213).

Sandor et al teaches an apparatus and method for generating *auto-stereography* wherein the apparatus comprises an *image comprising interlaced image elements*, (including left eye and right eye perspective images), (11-1 to 11-5, as shown in Figure 1), on one surface of a *film* (13) served as the *transparent substrate* and a *slit-type barrier screen* (12) formed on the other surface of the film (13) or substrate to provide parallax effect to the interlaced images such that the left eye perspective image is directed to left eye and right eye perspective image is directed to right eye for auto-stereoscopic viewing. Sandor et al **teaches** that, as shown in Figure 1, the image displayed on the film (11) that comprises a plurality of two-dimensional views for viewers (14) is made up of a *plurality of cells* that *each* further comprises a plurality of image strips or *pixels* (11-1 to 11-5), that is regrouping information to be displayed to a viewer for establishing *an auto-stereoscopic three-dimensional view between adjacent two eye positions,* (please see columns 1-2, and 8 **as for amendment to claim 17**). An illumination source for illuminating the image is implicitly included to generate the image light as demonstrated in Figures 1-2, and this suggests that the light source has to be behind the image film (11) to provide the light propagation as shown in Figures 1 and 2). Sandor et al teaches that the parallax barrier screen comprises clear aperture on opaque surface, (i.e. the black strips formed the opaque surface).

Sandor et al further teaches that **each single aperture** of the parallax barrier allows the image information from only one cell to pass through to observer position, (please see Figure 1).

With regard to the amended features "*a view of a neighboring cell is obstructed from all said points of view when said one of the said plurality of cells is viewed through one of said apertures thereby creating said auto-stereo three dimensional views*" recited in amended **claim 17** is **completely wrong**, since this will definitely destroy the auto-stereo three dimensional views. The essence of the stereoscopic image display apparatus is for the particular perspective image from each cells to be directed to the eye at the particular viewing position. If the viewer cannot see the information from other cells then no stereoscopic can be established. This feature therefore cannot be examined here.

With regard to claim 17, Sandor et al teaches explicitly that the image is processed by using a computer, (please see the abstract).

With regard to claim 18, the alignment of the barrier with respect to the image displayed is implicitly included for obtaining good image viewing quality.

With regard to claim 20, Sandor et al teaches that the barrier is of slit type barrier screen, (please see Figures 1 and 2).

9. **Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over patent issued to Sandor et al as applied to claim 17 above, and further in view of the patents issued to Berkel et al (PN. 6,118,584) and Nomura et al (PN. 5,949,390).**

The computer-generated auto-stereography method taught by Sandor et al as described for claim 17 above has met all the limitations of the claims.

With regard to claims 21 and 22, this reference does not teach explicitly that the image cells are separated by *rippled* shaped black lines and the apertures or slits on the parallax barrier are *staggered.* It is however either implicitly true that the image cells are separated by black lines (for black lines may inherently be provided by the film that without any image information) or an obvious modification to one skilled in the art to make the image cells being separated by the black lines as demonstrated by the teachings of **Berkel** et al. **Berkel** et al teaches that *black matrix* or black lines, with *ripple shapes* (as shown in Figure 2A, 7-9), separating the image cells are used to reduce the possible cross talk between the image cells. **Nomura** et al in the same field of endeavor further teaches to use a parallax barrier with *staggered* apertures or slits (please see Figure 2) in corresponding to the staggered shaped (or zigzag shaped) image cells (1, Figures 2, 3A and 3B) in order to allow the image light being projected to the desired eye positions for stereoscopic viewing. It would then have been obvious to one skilled in the art to apply the teachings of **Berkel** et al and **Nomura** et al to modify the image cells and the parallax barrier screen with the specific arrangements of the image cells and apertures accordingly for the benefit of reducing cross talk between the image cells to ensure good image intensity quality of the auto-stereoscopic image viewed.

10. Claims 38-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over the patent issued to Moseley et al (PN. 5,953,148) in view of the patent issued to Nomura et al (PN. 5,949,390).

Moseley et al teaches an *apparatus* and *method* for providing *auto-stereo three-dimensional view* wherein the apparatus comprises a *backlight illuminating source* (29, Figures 15b), a *transmissive liquid crystal display device* (please see Figure 15b) that implicitly includes a *transparent substrate* for providing *image*, a *parallax barrier* that serves as *parallax barrier screen* in front of the images to provide parallax effect wherein the barrier screen comprises of a *plurality of apertures*, (please see Figure 15b). Moseley teaches that the image pixels on the spatial light modulator or the liquid crystal display can be arranged in *staggering shapes* with *black mask* interposed between the staggered shaped pixels to maximize the display resolution by reducing the cross-talk i.e. to reduce light from neighboring regions to leak through the viewing window, (please see Figures 18, column 11, line 63 to column 12, lines 19). The black mask provides the *dark rippled lines* that "oscillates" between the top and bottom portion of the lower and upper rows among the pixels.

This reference has met all the limitations of the claims with the exception it does not teach **explicitly** that the apertures or the sits on the parallax barrier are *staggered.* **Nomura** et al in the same field of endeavor teaches to use a *parallax barrier with staggered apertures* or *slits* (please see Figure 2) to **align** with **staggered image cells** for the benefit of reducing the possible intensity variation caused by the *black lines* separating the image cells. It would then have been obvious to apply the teachings **Nomura** et al to modify the parallax barrier screen of Moseley et al accordingly for the benefit of reducing cross talk and reducing deterioration of resolution therefore ensured good image intensity of the auto-stereoscopic image viewed. These modifications would have improved the image quality greatly. Nomura et al teaches explicitly that the parallax barrier screen has apertures defining **windows** onto one of the plurality of image cells, (please see Figures 2, 3A and 4).

With the explicit demonstrations between the geometrical relationship between the image medium and the barrier screen. This implicitly suggests that in order for the auto-stereo three dimensional view to be established, the size of the apertures (i.e. the length and width), the horizontal separation and vertical separation of the apertures in the barrier and the thickness substrate for the image medium, is related to

(1) the luminosity, for the aperture size and the image medium size certainly determines the amount of the image light being able to pass through to provide the image being viewed,

(2). the horizontal viewing angle and vertical viewing angle, since the size of the aperture defines these viewing angles explicitly,

(3). the depth of field since the image medium and the parallax effect of the aperture determines the depth of field,

(4). the image definition, since the aperture size and the image pixels determines the image definition that is viewed by the observer.

The positions of the apertures and the arrangements of the pixels with the dark separations lines are closely related to each other in order for the perspective images light be directed the proper eyes for viewing.

With regard to claims 39-42 and 44-47, Moseley et al teaches that parallax barrier screen can have film with opaque layer with apertures defined therein, (please see Figure 15b). However this reference does not teach that the parallax barrier has two layers and each layer with apertures. **Nomura** et al in the same field of endeavor teaches that the parallax barrier can be provided by using two slit panels (14 and 14') that are either formed on *two* separated layers, (i.e. each with metal strips formed on a transparent plate, please see column 9, lines 1-3), or two sets of metal strips printed on two surfaces of a glass plate. Nomura et al teaches that arrangement has the advantage of providing a better reduction of the cross talk between the image cells, (please see Figure 17 and column 12 line 54 to column 13, line 13). The metal strips are opaque and could be reflective. It also known in the art to coat the back surface of the parallax barrier screen with highly reflective layer for the purpose of reflecting the light blocked by the barrier screen back to the illumination source in order to utilize the illumination source with more efficiency. It would then have been obvious to modify the barrier screen of Moseley et al with the teachings of Nomura et al for the benefit of providing better reduction of the cross talk between image cells and therefore provides better image quality.

Response to Arguments

11. Applicant's arguments filed May 9, 2006 have been fully considered but they are not persuasive. The newly amended claims have been fully addressed ant they are rejected for the reasons stated above.

12. Applicant's arguments are mainly based on the newly amended and newly added claims and they have been fully addressed in the paragraphs above.

13. In response to applicant's arguments which stated that the cited references are based on different technologies to produce auto-stereoscopic views which therefore cannot be combined, the examiner

respectfully disagrees for the reasons stated below. The cited Sandor, Berkel et al and Nomura et al references are based on the **same technology** to provide auto-stereoscopic namely using a **parallax optical element**, either being a *lenticular lens* or a *parallax barrier*, to direct the left perspective and right perspective images to the proper eyes of the observer. The newly cited Moseley reference (PN. 5,953,148) actually explicit demonstrates that lenticular lens is equivalent to a parallax barrier, (please see Figures 15a and 15b), in providing auto-stereoscopic views. Secondly, the combination using the cited Berkel et al reference that the applicant questioned about is based on the teachings of using black matrix in the image to prevent cross talk that can cause unwanted noise. The cross talk issues is a universal issues for the display system that is not limited to certain type of auto-stereoscopic image display. The combinations therefore are proper.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Audrey Y. Chang whose telephone number is 571-272-2309. The examiner can normally be reached on Monday-Friday (8:00-4:30), alternative Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Audrey Y. Chang, Ph.D.
Primary Examiner
Art Unit 2872

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